FORM PTO-1449 (REV.7-80)	•		.S. DEPARTMENT ATENT AND TRAD		ATTY. DOCKET NO. 500797.02 (30005/U	S/2)		ICATION NO. 686,118		
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•EXAMINET B	195	DOCUMENT NUMBER	DATE		NAME	CLA	SS	SUBCLASS		DATE OPRIATE
GJP	AA	4,979,185	12/18/90	Bryans et	al.	375		20		
-	AB						•			
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*EXAMINER INITIAL		DOCUMENT NUMBER	DATE		NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
GJP	AA	3,633,174	01/04/72	Griffin		340	172.5	_
1	AB	4,004,100	01/18/77	Takimot	0	179	15 BS	
	AC	4,077,016	02/28/78	Sanders	et al.	331	4	
	ΑD	4,096,402	06/20/78	Schroede	er et al.	307	362	·
	ΑE	4,404,474	09/13/83	Dingwal!		307.	260	
	AF	4,481,625	11/06/84	Roberts e	et al.	370	85	
	AG	4,508,983	04/02/85	Allgood	et al.	307	577	
	AH	4,511,846	04/16/85	Nagy et a	al.	328	164	
	AI	4,514,647	04/30/85	Shoji		307	269	
	AJ	4,524,448	06/18/85	Hullweg	en '	375	118	
	ΑK	4,573,017	02/25/86	Levine		327	114	
	AL	4,600,895	07/15/86	Landsma	Ŋ.	331	1 A	
	АМ	4,603,320	07/29/86	Farago		341	89	
	AN	4,638,187	01/20/87	Boler et a	ıl.	307	451	
	AO	4,638,451	01/20/87	Hester et	al.	395	889	
	ΑP	4,687,951	08/18/87	McElroy		307	269	
	ΑQ	4,727,541	02/23/88	Mori et a	1.	370	112	
	AR	4,746,996	05/24/88	Furuhata	et al.	360	36.2	·
	AS	4,773,085	09/20/88	Cordell		375	120	
	ΑŢ	4,789,796	12/06/88	Foss		307	443	
	ΑU	4,818,995	04/04/89	Takahash	i et al.	341	94	
	AV	4,893,087	01/09/90	Davis		328	14	
	ΑW	4,902,986	02/20/90	Lesmeiste	er	331 -	25	
<u> </u>	АХ	4,953,128	08/28/90	Kawai et	al.	365	194	
<u> </u>	AY	4,958,088	09/18/90	Farah-Ba	khsh et al.	307	443	
GJP	۸Z	4,972,470	11/20/90	Farago		380	3	
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GJP	BA	4,984,204	01/08/91	Sato et a	l .	365	189.11	
1	ВВ	5,020,023	05/28/91	Smith		364	900	
	ВС	5,038,115	08/06/91	Myers et	al.	331	2	
	BD	5,062,082	10/29/91	Choi		365	230.06	,
	BE	5,075,569	12/24/91	Branson		307	270	
	BF	5,086,500	02/04/92	Greub		395	550	
	BG	5,087,828	02/11/92	Sato et al	l.	307	269	
	ВН	5,122,690	06/16/92	Bianchi		307	475	
	ВІ	5,128,560	07/07/92	Chern et	al.	307	475	
	BJ	5,128,563	07/07/92	Hush et a	al.	307	482	
	вк	5,130,565	07/14/92	Girmay	·	307	265	
_	BL	5,134,311	07/28/92	Biber et a	al.	307	270	
	вм	5,150,186	09/22/92	Pinney et	t al.	357	42	
	BN	5,165,046	11/17/92	Hesson		307	270	
	во	5,168,199	12/01/92	Huffman	et al.	315	370	
	BP	5,179,298	01/12/93	Hirano et	t al.	307	443	
	BQ	5,182,524	01/26/93	Hopkins		330	149	
	BR	5,194,765	03/16/93	Dunlop e	t al.	307	443	
·	B\$	5,212,601	05/18/93	Wilson		360	51	
	вт	5,220,208	06/15/93	Schenck	····	307	443	
	BU	5,223,755	06/29/93	Richley	**************************************	307	603	
	BV	5,229,929	07/20/93	Shimizu	et al.	363	98	
	BW	5,233,314	08/03/93	McDerm	ott et al.	331	17	
	вх	5,233,564	08/03/93	Ohshima	et al.	365	230.05	
↓	ву	5,239,206	08/24/93	Yanai		307	272.2	
GJP	вг	5,243,703	09/07/93	Farmwald		395	325	
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GJP	СЛ	5,254,883	10/19/93	Horowitz et al.	307	443	·
	СВ	5,256,989	10/26/93	Parker et al.	331	1 A	
	СС	5,257,294	10/26/93	Pinto et al.	375	120	
	CD	5,268,639	12/07/93	Gasbarro et al.	324	158 R	
	CE	5,272,729	12/21/93	Bechade et al.	375	118	
	CF	5,274,276	12/28/93	Casper et al.	307	443	
	CG	5,276,642	01/04/94	Lee	365	189.04	
	СН	5,278,460	01/11/94	Casper	307	296.5	
	СІ	5,281,865	01/25/94	Yamashita et al.	307	279	
	a	5,283,631	02/01/94	Koerner et al.	307	451	
	СК	5,289,580	02/22/94	Latif et al.	395	275	
	CL	5,295,164	03/15/94	Yamamura	375	120	
	СМ	5,304,952	04/19/94	Quiet et al.	331	1 A	_
	CN	5,311,481	05/10/94	Casper et al.	365	230.06	
	co	5,311,483	05/10/94	Takasugi	365	233	
	СР	5,313,431	05/17/94	Uruma et al.	365	230.05	
	cq	5,315,388	05/24/94	Shen et al.	348	718	
	CR	5,321,368	06/14/94	Hoelzle	328	63	
	cs	5,337,285	08/09/94	Ware et al.	365	227	
	СТ	5,341,405	08/23/94	Mallard, Jr.	375	120	
	CU	5,347,177	09/13/94	Lipp	307	443	
	cv	5,347,179	09/13/94	Casper et al.	307	451	·
	cw	5,355,391	10/11/94	Horowitz et al.	375	36	
	сх	5,361,002	11/1/94	Casper	327	530	
<u> </u>	СҰ	5,367,649	11/22/94	Cedar	395	375	
GSP	cz	5,379,299	01/03/95	Schwartz	370	108	
EXAMINE		GARY J. PO		DATE CONSIDERED	12/9/0		
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GJP	DA	5,390,308	02/14/95	Ware et	al.	395	400	
1	DB	5,400,283	03/21/95	Raad		365	203	
	DC	5,402,389	03/28/95	Flannaga	ın et al.	365	233	
	DD	5,408,640	04/18/95	MacInty	re et al.	395	550	
	DE	5,410,263	04/25/95	Waizmaı	1	327	141	
	DF	5,416,436	05/16/95	Rainard	·	327	270	
	DG	5,416,909	05/16/95	Long et a	al.	395	275	
	DH	5,420,544	05/30/95	Ishibashi		331	11	
	DI	5,428,311	06/27/95	McClure		327	276	
	נס	5,428,317	06/27/95	Sanchez	et al.	331	1 A	
·	DK	5,430,408	07/04/95	Ovens et	al.	327	407	
	DL	5,430,676	07/04/95	Ware et a	al.	365	189.02	
	DM	5,432,823	07/11/95	Gasbarro	et al.	375	356	
	DN	5,438,545	08/01/95	Sim	•	365	189.05	
	DO	5,440,260	08/08/95	Hayashi	et al.	327	278	
	DP	5,440,514	08/08/95	Flannaga	n et al.	365	194	·
	DQ	5,444,667	08/22/95	Obara		365	233	-
	DR	5,446,696	08/29/95	Ware et a	il.	365	222	
	DS	5,448,193	09/05/95	Baumert	et al.	327	156	
	DΤ	5,451,898	09/19/95	Johnson	·	327	563	
	DU	5,457,407	10/10/95	Shu et al.		326	30	
	DV	5,465,076	11/07/95	Yamauch	i et al.	331	179	
	DW	5,473,274	12/05/95	Reilly et	al.	327	159	
	DX	5,473,575	12/05/95	Farmwale	i et al.	365	230.06	
	DY	5,473,639	12/05/95	Lee et al.		375	376	
GJP	DZ	5,485,490	01/16/96	Leung et		375	371	
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GJP	EA	5,488,321	01/30/96	Johnson	327	66	
1	EB	5,489,864	02/06/96	Ashuri	327	161	
	EC	5,497,127	03/05/96	Sauer	331	17	
	ED	5,497,355	03/05/96	Mills et al.	365	230.08	
	EE	5,498,990	03/12/96	Leung et al.	327	323	\
	EF	5,500,808	03/19/96	Wang	364	578	•
	EG	5,502,672	03/26/96	Kwon	365	189.05	
	ЕН	5,506,814	04/09/96	Hush et al.	365	230.03	
	EI	5,508,638	04/16/96	Cowles et al.	326	38	
_	EI	5,513,327	04/30/96	Farmwald et al.	395	309	
	EK	5,532,714	07/02/96	Knapp et al.	345	114	
	EL	5,539,345	07/23/96	Hawkins	327	150	
	ЕМ	5,544,124	08/06/96	Zagar et al.	365	230.08	
	EN	5,544,203	08/06/96	Casasanta et al.	375	376	
	EO	5,550,783	08/27/96	Stephens, Jr. et al.	365	233	
-	EP	5,552,727	09/03/96	Nakao	327	159	•.
	EQ	5,555,429	09/17/96	Parkinson et al.	395	800	
	ER	5,557,224	09/17/96	Wright et al.	327	115	
	ES	5,557,781	09/17/96	Stones et al.	395	550	
	ЕΤ	5,563,546	10/08/96	Tsukada	327	408	
	EU	5,568,075	10/22/96	Curran et al.	327	172	
	ΕV	5,568,077	10/22/96	Sato et al.	327	199	
	EW	5,572,557	11/05/96	Aoki	375	376	
	EX	5,572,722	11/05/96	Vogley	395	555	
↓	EY	5,574,698	11/12/96	Raad	365	230.06	
GJP	EZ	5,576,645	11/19/96	Farwell	327	94	
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GJP	FA	5,577,236	11/19/96	Johnson et al.	395	551	
lack	FB	5,578,940	11/26/96	Dillon et al.	326	30	
	FC	5,578,941	11/26/96	Sher et al.	326	34	
	FD	5,579,326	11/26/96	McClure	371	61	
	FE	5,581,197	12/03/96	Motley et al.	326	30	
	FF	5,589,788	12/31/96	Goto	327	276	
	FG	5,590,073	12/31/96	Arakawa et al.	365	185.08	
	FH	5,594,690	01/14/97	Rothenberger et al.	365	189.01	
	Fl	5,614,855	03/25/97	Lee et al.	327	158	
	FJ	5,619,473	04/08/97	Hotta	365	238.5	
	FK	5,621,340	04/15/97	Lee et al.	327	65	
	FL	5,621,690	04/15/97	Jungroth et al.	365	200	
	FM	5,621,739	04/15/97	Sine et al.	371	22.1	
	FN	5,627,780	05/06/97	Malhi .	365	185.09	
	FO.	5,627,791	05/06/97	Wright et al.	365	222	
	FP	5,631,872	05/20/97	Naritake et al.	365	227	
	FQ	5,636,163	06/03/97	Furutani et al.	365	233	
	FR	5,636,173	06/03/97	Schaefer	365	230.03	
	FS	5,636,174	06/03/97	Rao	365	230.03	
	FT	5,638,335	06/10/97	Akiyama et al.	365	230.03	
	FU	5,646,904	07/08/97	Ohno et al.	365	233	
	F۷	5,652,530	07/29/97	Ashuri .	326	93	
	FW	5,657,289	08/12/97	Hush et al.	365	230.05	
	FX	5,657,481	08/12/97	Farmwald et al.	395	551	
	FΥ	5,663,921	09/02/97	Pascucci et al.	365	233	
GSP	fZ	5,666,322	09/09/97	Conkle	365	233	
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GSP	GA	5,668,763	09/16/97	Fujioka et al.	365	200	
1	GB	5,668,774	09/16/97	Furatani	365	233	
	GC	5,673,005	09/30/97	Pricer	331	1 R	
	GD	5,675,274	10/07/97	Kobayashi et al.	327	158	
	GE	5,675,588	10/07/97	Maruyama et al.	371	20.4	
	GF	5,692,165	11/25/97	Jeddeloh et al.	395	551	
	GG	5,694,065	12/02/97	Hamasaki et al.	327	108	
	GН	5,708,611	01/13/98	Iwamoto	365	233 X	
	GI	5,712,580	01/27/98	Baumgartner et al.	327	12	
	GI	5,719,508	02/17/98	Daly	327	12	
	GK	5,737,342	04/07/98	Ziperovich	371	25.1	
	GL	5,740,123	04/14/98	Uchida	365	233	
	GM	5,751,665	05/12/98	Tanoi	368	120	
	GN	5,767,715	06/16/98	Marquis et al.	327	159	
	GO	5,768,177	06/16/98	Sakuragi	365	194	
	GP	5,774,699	06/30/98	Nagae	395	551.	
	GQ	5,778,214	07/07/98	Taya et al.	395	551	
	GR	5,781,499	07/14/98	Koshikawa	365	233	
	GS	5,784,422	07/21/98	Heermann	375	355	
	GT	5,789,947	08/04/98	Sato	327	3	·
	GU	5,790,612	08/04/98	Chengson et al.	375	373	
	G۷	5,794,020	08/11/98	Tanaka et al.	395	552	
	GW	5,805,931	09/08/98	Morzano et al.	395	884	
	GX	5,812,619	09/22/98	Runaldue	375	376	
<u> </u>	GΥ	5,822,314	10/13/98	Chater-Lea	370	337	
GJP	GZ	5,831,929	11/03/98	Manning	365	233	
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GJP	НА	5,841,707	11/24/98	Cline et al.		365	194	
1	нв	5,852,378	12/22/98	Keeth.		327	171	
	нс	5,872,959	02/16/99	Nguyen et al.		395	552	
	НD	5,889,829	03/30/99	Chiao et al.		375	376	
	HE	5,898,242	04/27/99	Peterson		327	278	
	HF	5,898,674	04/27/99	Mawhinney et a	l	370	247	
	нс	5,917,760	06/29/99	Millar		365	194	
·	нн	5,920,518	07/06/99	Harrison et al.	<i>-</i>	365	233	
	н	5,926,047	07/20/99	Harrison		327	159	
	н	5,926,436	07/20/99	Toda et al.		365	236	
	нк	5,940,608	08/17/99	Manning		395	551	
	HL	5,940,609	08/17/99	Harrison		395	559	
	нм	5,946,244	08/31/99	Manning		365	194	
	HN	5,953,284	09/14/99	Baker et al.		365	233	
	но	5,964,884	10/12/99	Partovi et al.		713	503	
	НР	5,990,719	11/23/99	Dai et al.		327	244	
	HQ	6,005,823	12/21/99	Martin et al.		365	230.08	
	HR	6,011,732	01/04/00	Harrison et al.		365	194	
	HS	6,016,282	01/18/00	Keeth		365	233	
	нт	6,023,489	02/08/00	Hatch		375	208	
	нυ	6,026,050	02/15/00	Baker et al.		635	233	
	нν	6,029,250	02/22/00	Keeth		713	400	
	нพ	6,038,219	03/14/00	Mawhinney et al.		370	242	
	нх	6,067,592	05/23/00	Farmwald et al.		710	104	
U	нү	6,101,152	08/08/00	Farmwald et al.		365	233	
GUP	нz	6,101,197	08/08/00	Keeth et al.		370	517	
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• EXAMINE		nitial if reference consider conformance and not consider	ed, whether or not lered. Include cor	criteria is in conformance	with MPEP 609. Draw	line through cits		

Sheet 9 of 13 FORM PTO-1449 APPLICATION NO. U.S. DEPARTMENT OF COMMERCE ATTY, DOCKET NO. (REV.7-80) PATENT AND TRADEMARK OFFICE 500797.02 (30005/US/2) Not Yet Assigned APPLICANTS INFORMATION DISCLOSURE STATEMENT Brian Johnson and Ronnie M. Harrison (Use several sheets if necessary) FILING DATE GROUP ART UNIT Concurrently herewith Not Yet Assigned **U.S. PATENT DOCUMENTS** EXAMINER DOCUMENT NUMBER ، DATE NAME CLASS SUBCLASS FILING DATE INITIAL GJP 6,105,157 08/15/00 Miller 714 744 6,147,905 11/14/00 Seino 365 185.11 IB 6,147,916 11/14/00 Ogura IÇ 365 203 327 6,160,423 12/12/00 Haq 41 ID 6,262,921 B1 07/17/01 Manning 365 194 ΙE 6,269,451 B1 07/31/01 Mullarkey 713 401 ΙF IG 6,298,450 B1 10/02/01 Liu et al. 713 502 6,327,196 B1 12/04/01 Mullarkey IH 365 194 6,338,127 B1 01/08/02 Manning 711 167 11 6,378,079 B1 04/23/02 Mullarkey 713 U 401 GJP ΙK 6,499,111 B2 12/24/02 Mullarkey 713 401 FOREIGN PATENT DOCUMENTS DOCUMENT NUMBER DATE COUNTRY CLASS SUBCLASS TRANSLATION YES NO 0 171 720 A2 02/19/86 **EP** IL X 6-1237512 10/22/86 JP (Abstract Only) M X 0 295 515 A1 12/21/88 EP IN X 2-112317 4/25/90 10 JP (+ Abstract) X 0 406 786 A1 1/9/91 EP ťΡ X 0 450 871 A2 10/9/91 EP ĮQ X 0 476 585 A3 3/25/92 **EP** IR X 4-135311 5/8/92 IS JP (+ Abstract) 5-136664 6/1/93 X ΤI JP (+ Abstract) - X-5-282868 IU 10/29/93 JP (Abstract Only) X WO 94/29871 iv 12/22/94 **PCT EXAMINER** DATE CONSIDERED GARY J. PORTKA 12/9/05

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			FORE	IGN PATENT DOCUMENTS				
		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANS	LATION
							YES	NO
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	ΙX	0 655 834 A1	5/31/95	EP		· .	Х	
	ΙY	WO 95/22200	8/17/95	PCT			х	
	ız	WO 95/22206	8/17/95	PCT			Х	
	JA	0 680 049 A2	11/2/95	EP			X	
	JB	0-7319577	12/8/95	JP (+ Abstract) (Abstract Only))		Х	
	1C	0 703 663 A1	3/27/96	EP			Х	
	JD.	0 704 848 A3	4/3/96	EP ·			Х	
	JE	0 704 975 A1	4/3/96	EP			Х	
	JF	WO 96/10866	4/11/96	PCT			х	
	10	0 767 538 A1	4/9/97	EP			х	
	Ж	WO 97/14289	4/24/97	PCT			Х	
	JI	WO 97/42557	11/13/97	PCT			Х	
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	JK	Anonymous, "40 Operation," SLD pp.1-22	0MHz SLD RAM Conso	RAM, 4M X 16 SLDRAM Pipelin ortium Advance Sheet, published t	ned, Eight hroughou	Bank, 2.5 t the Unite	V d State	s,
	٦L	Anonymous, "Dr and Microcompu	ter Standard	for a High-Speed Memory Interfals S Subcommittee of the IEEE Com and Electronics Engineers, Inc., No	puter Soc	iety, Copyr	right 1	cessor 996
	М	Anonymous, "Pro No. 12, May 197	ogrammable 5, pp. 3553-	Pulse Generator", IBM Technical 3554	Disclosu	re Bulletin	, Vol.	·
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	ΤL	Chapman, J. et al., "A Low-Cost High-Performance CMOS Timing Vernier for ATE", IEEE International Test Conference, Paper 21.2, 1995, pp. 459-468
	מנ	Cho, J. "Digitally-Controlled PLL with Pulse Width Detection Mechanism for Error Correction", ISSCC 1997, Paper No. SA 20.3, pp. 334-335
	JV.	Christiansen, J., "An Integrated High Resolution CMOS Timing Generator Based on an Array of Delay Locked Loops", IEEE Journal of Solid-State Circuits, Vol. 31, No. 7, July 1996, pp. 952-957
	JW	Combes, M. et al., "A Portable Clock Multiplier Generator Using Digital CMOS Standard Cells", IEEE Journal of Solid-State Circuits, Vol. 31, No. 7, July 1996, pp. 958-965
	JX	Donnelly, K. et al., "A 660 MB/s Interface Megacell Portable Circuit in 0.3 µm-0.7 µm CMOS ASIC", IEEE Journal of Solid-State Circuits, Vol. 31, No. 12, December 1996, pp. 1995-2001
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	KA	Hamamoto, T., "400-MHz Random Column Operating SDRAM Techniques with Self-Skew Compensation", IEEE Journal of Solid-State Circuits, Vol. 33, No. 5, May 1998, pp. 770-778
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	к	Maneatis, J., "Low-Jitter Process-Independent DLL Techniques", IEEE Journal of Solid-State Circuits, 1732	and PLL Based on Self-Biased Vol. 31, No. 11, November 1996, pp. 1723
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